

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed October 18, 2002. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I. Claim Rejections - 35 U.S.C. § 112, Second Paragraph

Claim 8 has been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. In particular, the Examiner states that the reference to "the internal heating element" is unclear.

In response to these rejection, Applicant has amended claim 8 to state "wherein at least one of the internal heating elements comprises a tungsten filament halogen lamp" to clarify that either or both of the heating elements may comprise a tungsten filament halogen lamp.

In view of the above described amendment to the claim 8, it is respectfully asserted that claim 8 currently defines the invention in the manner required by 35 U.S.C. § 112. Accordingly, it is respectfully requested that the rejection to this claim be withdrawn.

II. Claim Rejections - 35 U.S.C. § 102(e)**A. Statement of the Rejection**

Claims 1, 6, and 7 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Cerrah (U.S. Pat. No. 6,061,545).

The rejection states that Cerrah discloses Applicant's invention as recited in the above-identified claims. Applicant respectfully traverses this rejection.

B. Discussion of the Rejection

As noted above, independent claim 1 has been amended. In view of this amendment, Applicant respectfully submits that the rejection as to claim 1, and claims 6 and 7 which depend therefrom, is moot. Therefore, Applicant respectfully requests that the rejection be withdrawn.

III. Claim Rejections - 35 U.S.C. § 103(a)**A. Rejection of Claims 3-5, 10-11, and 16-17****1. Statement of Rejection**

Claims 3-5, 10-11, and 16-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Cerrah in view of "Applicant's acknowledged prior art."

The rejection alleges that Cerrah discloses Applicant's invention substantially as claimed with the exception of elastomeric material applied to fuser and/or pressure rollers. The rejection concludes, however, that in view Applicant's own disclosure, it would have been obvious to a person having ordinary skill in the art to provide such elastomeric material. Applicant respectfully traverses this rejection.

2. Discussion of the Rejection

As noted above, independent claim 1 has been amended. In view of this amendment, Applicant respectfully submits that the rejections as to claims 3-5, which depend from claim 1, are moot. Therefore, Applicant respectfully requests that these rejections be withdrawn.

Similarly, independent claims 10 and 16 have been amended. In view of these amendments, Applicant further respectfully submits that the rejections as to claims 10

and 16, as well as 11 and 17 which depend from claims 10 and 16 respectively, are moot. Therefore, Applicant respectfully requests that these rejections also be withdrawn.

B. Rejection of Claim 8

1. Statement of the Rejection

Claim 8 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Cerrah in view of Isogai (U.S. Pat. No. 5,950,060).

The rejection alleges that Cerrah discloses Applicant's invention substantially as claimed with the exception of the use of tungsten filament halogen lamps. The rejection concludes, however, that in view of the Isogai disclosure, it would have been obvious to a person having ordinary skill in the art to use a tungsten filament halogen lamp in the Cerrah device. Applicant respectfully traverses this rejection.

2. Discussion of the Rejection

As noted above, independent claim 1 has been amended. In view of this amendment, Applicant respectfully submits that the rejection as to claim 8, which depends from claim 1, is moot. Therefore, Applicant respectfully requests that the rejection be withdrawn.

C. Rejection of Claim 9**1. Statement of Rejection**

Claim 9 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Cerrah in view of Ciaschi (U.S. Pat. No. 6,304,740).

The rejection alleges that Cerrah discloses Applicant's invention substantially as claimed with the exception of a second heating roller external to and in contact with the pressure roller. The rejection concludes, however, that in view of the Ciaschi disclosure, it would have been obvious to a person having ordinary skill in the art to provide such a second heating roller in the Cerrah device.

Although claim 9 has been cancelled from the application, Applicant addresses the rejection below in regard to independent claim 1 in that content similar to that contained in cancelled claim 9 has been added to claim 1.

2. Discussion of the Rejection

As noted above, claim 1 has been amended to include content similar to that contained in cancelled claim 9. In its amended form, claim 1 provides as follows:

1. A fusing system for fusing toner to a recording medium, comprising:
 - a fuser roller including a hollow tube and an internal heating element;
 - a pressure roller in contact with the fuser roller;
 - a first heating roller external to and in contact with the fuser roller; and
 - a second heating roller external to and in contact with the pressure roller.*

Applicant's claim 1 (emphasis added). Accordingly, claim 1 now requires two external heating rollers, one in contact with the fuser roller and the other in contact with the pressure roller.

The Office Action alleges that addition of a second external heating roller to the Cerrah device would have been obvious to a person having ordinary skill in the art in view of the Ciaschi reference. As acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. See In re Fine, 837, F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Accordingly, to make a proper case for obviousness, there must be some prior art teaching or established knowledge that would suggest to a person having ordinary skill in the pertinent art to fill the voids apparent in the applied reference.

In making its case for obviousness, the Office Action states:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the fusing system disclosed by Cerrah including a second heating roller external to and in contact with the pressure roller as taught by Ciaschi et al. for the purpose of reducing the size of roller cores *to reduce the overall space the apparatus needs*.

Office Action (Paper No. 8), page 5, last paragraph (emphasis added). Unfortunately, however, the above-noted argument does not make logical sense. Specifically, if a person having ordinary skill in the art would have interest in "reducing the overall space the [fusing] apparatus needs," that person would be motivated away from adding another external heating roller. This fact is clearly evident from Cerrah Figure 2. As shown in

this figure, the "external heat member 8" is positioned such that its top edge extends beyond the top edge of the "fuser roll 20." Therefore, if one were to add a second external heat member to the "pressure roll 21" in the same manner, the overall space that the Cerrah fusing apparatus would require would actually increase, not decrease.

That addition of a second external heat member would actually increase the size of the Cerrah fusing apparatus and, therefore, increase its space requirements is further confirmed by the Ciaschi reference. As is clearly identified in Figure 4 of the Ciaschi reference, the inclusion of two external heat sources, one in contact with each of the fuser and pressure rollers, significantly increases the vertical dimensions of the fusing apparatus and therefore significantly increases the space requirements of the fusing apparatus. Accordingly, it is readily apparent that, if anything, the references actually teach away from the combination suggested in the Office Action.

Applicant notes that the Office Action is correct that space requirements have typically been an important concern when it comes to fusing system design. As is known in the art, the housing of a printer typically is crowded with various components, particularly now in an environment in which the consumer is interested in smaller and smaller printers. These facts underscore the importance in limiting the size of the fusing system and further underscores why a person having ordinary skill in the art would not be motivated to add a second external heat member to the Cerrah apparatus.

Furthermore, there is nothing within the Cerrah disclosure that suggests that a second external heat member would be required or otherwise desirable in the Cerrah apparatus. Indeed, depending upon the system configuration, the addition of a second external heat member may create more problems than benefits (*e.g.*, energy consumption, equipment cost, heating element replacement issues/cost, *etc.*). These

factors further weigh against the addition of a second heat member to the Cerrah apparatus.

In addition to the above described defects of the rejection, Applicant respectfully asserts that the proposed combination is improper. It has been well established that teachings of references can be combined only if there is some suggestion or incentive to do so. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, there must be a teaching in the relevant art which would suggest to a person having ordinary skill in that art the desirability of adding a second heat member to the Cerrah apparatus. Applicant's review of the applied references and the remainder of the prior art of record has not resulted in the identification of any such teaching.

In summary, it is Applicant's position that a proper case for obviousness has not been made against Applicant's now cancelled claim 9. Therefore, it is respectfully submitted that the Cerrah/Ciaschi combination similarly fails to render obvious independent claim 1, which incorporates content similar to that which was contained in claim 9. Accordingly, Applicant believes claim 1 to be allowable over the prior art of record.

D. Rejection of Claims 12 and 18

1. Statement of Rejection

Claims 12 and 18 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Cerrah in view of "Applicant's acknowledged prior art" and further in view of Isogai.

The rejection alleges that the combination of Cerrah and Applicant's disclosure discloses Applicant's invention substantially as claimed with the exception of tungsten

filament halogen lamps. The rejection concludes, however, that in view Isogai, it would have been obvious to a person having ordinary skill in the art to provide such lamps. Applicant respectfully traverses this rejection.

2. Discussion of the Rejection

As noted above, independent claims 10 and 16 have been amended. In view of these amendments, Applicant respectfully submits that the rejections as to claims 12 and 18, which depend from claims 10 and 16 respectively, are moot. Therefore, Applicant respectfully requests that these rejections also be withdrawn.

E. Rejection of Claim 13 and 19

1. Statement of Rejection

Claims 13 and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Cerrah in view of "Applicant's acknowledged prior art" and further in view of Ciaschi.

The rejection alleges that the combination of Cerrah and Applicant's disclosure discloses Applicant's invention substantially as claimed with the exception of a second heating roller external to and in contact with the pressure roller. The rejection concludes, however, that in view of the Ciaschi disclosure, it would have been obvious to a person having ordinary skill in the art to provide such a second heating roller.

Although claims 13 and 19 have been cancelled from the application, Applicant addresses the rejections to these claims below in regard to independent claims 10 and 16 in that content similar to that contained in cancelled claims 13 and 19 has been added to claims 10 and 16.

2. Discussion of the Rejection

As noted above, claims 10 and 16 have been amended to include content similar to that contained in cancelled claims 13 and 19. In their amended form, claims 10 and 16 provide as follows:

10. A fusing system for fusing toner to a recording medium, comprising:

a hollow fuser roller having an internal heating element and an outer layer composed of an elastomeric material;

a pressure roller in contact with the fuser roller and having an outer layer composed of an elastomeric material;

a first hollow heating roller having an internal heating element, the first heating roller external to and being in contact with the fuser roller; and

a second hollow heating roller having an internal heating element, the second hollow heating roller external to and being in contact with the pressure roller.

16. A device in which toner is fused to a recording medium, comprising:

means for attracting toner to a surface of the recording medium; and

a fusing system including a hollow fuser roller having an internal heating element and an outer layer composed of an elastomeric material, a pressure roller in contact with the fuser roller and having an outer layer composed of an elastomeric material, a first hollow heating roller having an internal heating element, the first heating roller being in contact with the fuser roller, and *a second hollow heating roller having an internal heating element, the second heating roller being in contact with the pressure roller.*

Applicant's claims 10 and 16 (emphasis added). Accordingly, claims 10 and 16 now require two external heating rollers, one in contact with the fuser roller and the other in contact with the pressure roller.

As stated in the rejection of claim 9, the Office Action alleges that addition of a second external heating roller to the Cerrah device would have been obvious to a person having ordinary skill in the art in view of the Ciaschi reference. In making its case for obviousness, the Office Action states:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the fusing system disclosed by Cerrah as modified by Applicant's acknowledged prior art including a second heating roller external to and in contact with the pressure roller as taught by Ciaschi et al. for the purpose of reducing the size of roller cores *to reduce the overall space the apparatus needs*.

Office Action (Paper No. 8), page 7, first paragraph (emphasis added). Again, however, the above-noted argument does not make logical sense. As noted above in Applicant's discussion of claim 1, if a person having ordinary skill in the art would have interest in "reducing the overall space the [fusing] apparatus needs," that person would be motivated away from adding another external heating roller in that, if one were to add a second external heat member to the "pressure roll 21," the overall space the Cerrah fusing apparatus would require would actually increase, not decrease.

Accordingly, it is Applicant's position that a proper case for obviousness has not been made against Applicant's now cancelled claims 13 and 19. Therefore, it is respectfully submitted that proposed combination of references similarly fails to render obvious independent claims 10 and 16, which incorporate content similar to that which

was contained in claims 13 and 19. Accordingly, Applicant believes claims 10 and 16 to be allowable over the prior art of record.

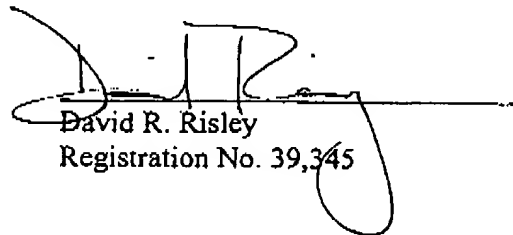
IV. Canceled Claims

As identified above, claims 9, 13 and 19 have been canceled from the application through this response without prejudice, waiver, or disclaimer. Applicant reserves the right to present these canceled claims, or variants thereof, in continuing applications to be filed subsequently.

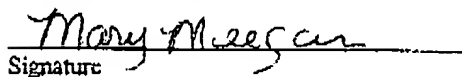
CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,


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Signature

ANNOTATED VERSION OF MODIFIED CLAIMS TO SHOW CHANGES MADE

The following claims have been amended by deleting the bracketed ("[]") portions and adding the underlined ("___") portions.

1. (Twice Amended) A fusing system for fusing toner to a recording medium, comprising:

a fuser roller including a hollow tube and an internal heating element;

a pressure roller in contact with the fuser roller; [and]

a first heating roller external to and in contact with [one of] the fuser [and the pressure] roller[s]; and

a second heating roller external to and in contact with the pressure roller.

8. (Once amended) The system of claim 7, wherein at least one of the internal heating elements comprises a tungsten filament halogen lamp.

10. (Once amended) A fusing system for fusing toner to a recording medium, comprising:

a hollow fuser roller having an internal heating element and an outer layer composed of an elastomeric material;

a pressure roller in contact with the fuser roller and having an outer layer composed of an elastomeric material; [and]

a first hollow heating roller having an internal heating element, the first heating roller external to and being in contact with the fuser roller; and

a second hollow heating roller having an internal heating element, the second hollow heating roller external to and being in contact with the pressure roller.

16. (Once amended) A device in which toner is fused to a recording medium, comprising:

means for attracting toner to a surface of the recording medium; and

a fusing system including a hollow fuser roller having an internal heating element and an outer layer composed of an elastomeric material, a pressure roller in contact with the fuser roller and having an outer layer composed of an elastomeric material, [and] a first hollow heating roller having an internal heating element, the first heating roller being in contact with the fuser roller, and a second hollow heating roller having an internal heating element, the second heating roller being in contact with the pressure roller.